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(71) Applicant: PRIMARION, INC. [US/US]; 2507 West Geneva, Tempe, AZ 85282 (US).

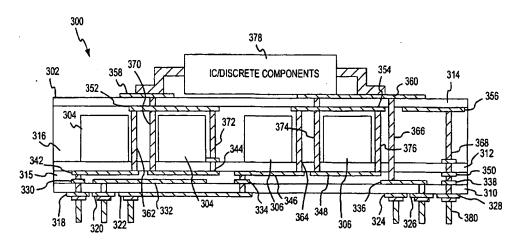
- Geneva, Tempe, AZ 85282 (US).
- (72) Inventor: DUFFY, Thomas, P.: 1630 West Winchester Way, Chandler, AZ 85248 (US).
- (74) Agent: PILLOTE, Cynthia, L.; Snell & Wilmer L.L.P., One Arizona Center, 400 East Van Buren, Phoenix, AZ 85004-2202 (US).
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(54) Title: MICROELECTRONIC MAGNETIC STRUCTURE, DEVICE INCLUDING THE STRUCTURE, AND METHODS OF FORMING THE STRUCTURE AND DEVICE



(57) Abstract: An improved magnetic structure suitable for electronic applications is disclosed. The magnetic structure (304, 306) may be formed on or within a substrate (302) such as a printed circuit board by forming a layer of magnetic material, pattering the layer of magnetic material, and etching the layer to form the magnetic structure. Various insulating layers (310-316) and/or conductive layers (318-368) may then be formed over the magnetic structures as part of the substrate. Inductors suitable for use in power supplies may be formed using the magnetic structures of the present invention.

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INTERNATIONAL SEARCH REPORT

Internatio **Application No** PCT/US 01/31457

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 H01F17/00 H01F H01F41/04 According to International Patent Classification (IPC) or to both national classification and IPC **B. FIELDS SEARCHED** Minimum documentation searched (classification system followed by classification symbols) IPC 7 H01F Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, WPI Data, PAJ C. DOCUMENTS CONSIDERED TO BE RELEVANT Relevant to claim No. Citation of document, with indication, where appropriate, of the relevant passages X 1,2,4-8US 5 959 846 A (MIYASHITA MASASHI ET AL) 15,17-19 28 September 1999 (1999-09-28) Y 9,11-13abstract column 1, line 60 - line 65 column 4, line 50 -column 6, line 13 column 7, line 63 -column 8, line 4; figures 1,9,13,18 EP 0 756 298 A (AUTOSPLICE SYSTEMS INC) 1,2,4-6X 29 January 1997 (1997-01-29) abstract; figures Υ 9,11-13 Y US 3 898 595 A (LAUNT LARRY L) 9,11-13 5 August 1975 (1975-08-05) column 2, line 36 - line 62; figures Further documents are listed in the continuation of box C. Patent family members are listed in annex. Special categories of cited documents: "T" later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the "A" document defining the general state of the art which is not considered to be of particular relevance *E* earlier document but published on or after the international "X" document of particular relevance; the claimed invention filing date cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such docu-"O" document referring to an oral disclosure, use, exhibition or ments, such combination being obvious to a person skilled other means document published prior to the International filing date but later than the priority date claimed in the art. "&" document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 22/04/2002 12 April 2002 Name and mailing address of the ISA Authorized officer European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Marti Almeda, R

Fax: (+31-70) 340-3016

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